

## REMARKS

Receipt of the Office Action of April 30, 2008 is gratefully acknowledged.

### REJECTION UNDER 35 USC 101

Claims 4 and 5 have been cancelled and new claims 6-9 have been added. In the new claims, terms "data storing means" and "look-ahead mapping means" are used instead of "data file" and "advanced mapping file", which are used in the specification. Claims 8 and 9 are different from claims 6 and 7 in that "entry"/"entries" has been changed to "register"/"registers", and accordingly, "(entry) address" has been changed to "(register) number". These changes should obviate the rejection under 35 USC 101 since functional structure has been defined.

### REJECTION UNDER 35 USC 102

Claims 4-5 have been rejected under 35 U.S.C. 102(b) as being anticipated by Cliff et al (U.S. Patent No. 6,633,970).

Claims 4-5 are concerned with a look-ahead stack management system, which Cliff does not disclose. In fact, the word "stack" cannot be found in Cliff's specification. Accordingly, Cliff cannot, it is respectfully submitted, anticipate claims 4-5 or new claims 6-9.

The structure of the data file (data storing means) is described on page 16 line 14 - page 17 line 3. And, the structure of the advanced

mapping file (look-ahead mapping means) is described on page 14 line 23 - page 16 line 13 with reference to Fig. 3.

With the preferred embodiment disclosed in the present application, "Such a state of the operand stack of a traditional stack machine as { ..., word3, word2, word1 } (the right end is the top of the stack) corresponds to a state of the computer system of the present invention in which, with a, b, c, ... representing contents of mapping-file entries of address 0, 1, 2, ... respectively, word1, word2, word3, ... are (to be) held in the data-file entries whose addresses are a, b, c, ..., respectively" (page 15 lines 6-11). Namely, values of the top, 2nd, 3rd, ... element of the operand stack are (to be) held in the data-file entries whose addresses are indicated in the advanced-mapping-file entries of address 0, 1, 2, ... respectively. Therefore, a TOS (top of the stack) register is unneeded, since the entry (register) of the advanced mapping file corresponding to the top of the stack stays unchanged despite growth/shrinkage of the stack.

The general description of the action of the look-ahead stack management system according to claims 6-9 is described on page 23 line 21 - page 24 line 21 (See also: page 8 line 11 - page 11 line 7).

An example action of processing two instructions, Instruction\_1 and Instruction\_2, is described on page 28 line 1 - page 32 line 25 with reference to Figs. 8-14. The state-modification field content of Instruction\_1 is SM{ +2: f4, f1 }, which implies growing the stack by two elements. And, that of Instruction\_2 is SM{ -2: }, which implies shrinking the stack by two elements. The state of the advanced mapping file 3a right after issuing of Instruction\_1 / Instruction\_2 is illustrated in Fig. 9 / Fig. 10,

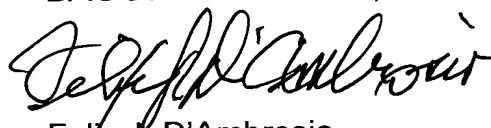
which indicates that the advanced-mapping-file entry of address 0 is to correspond to the top of the stack.

The circuit for making a modification on a look-ahead mapping means can be streamlined by adopting the look-ahead stack management system according to claims 6-9. It is not possible to achieve this result with a traditional stack management system equipped with a circular buffer having a TOS register. And, the look-ahead mapping means can have a non-power-of-two number of entries (registers) for stack management.

In view of the foregoing, reconsideration and re-examination are respectfully requested and claims 6-9 found allowable.

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Respectfully submitted,  
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